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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,445	03/14/2001	Keiji Yuzawa	SONYJP 3.0-144	3767
530	7590	12/27/2005	EXAMINER	
LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK 600 SOUTH AVENUE WEST WESTFIELD, NJ 07090			SALTARELLI, DOMINIC D	
			ART UNIT	PAPER NUMBER
			2611	

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/808,445	<b>Applicant(s)</b> YUZAWA, KEIJI	
	<b>Examiner</b> Dominic D. Saltarelli	<b>Art Unit</b> 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### **Response to Arguments**

1. Applicant's arguments filed October 20, 2005 have been fully considered but they are not persuasive.

Regarding claims 1 and 8, applicant argues that Florin does not teach delivering "restored repeating data having the same signal format as the received repeating data to a reception processor" (applicant's remarks, page 9) because Florin does not teach re-interleaving received data (applicant's remarks, page 7, second paragraph) and that use of the system of Florin would not result in the re-interleaving of said data (applicant's remarks, pages 7-8).

In response, the examiner must note that the actual scope of the claims is much broader than what the examiner understands to be the intended scope of coverage sought by the applicant. Most notably, there are two issues that require clarification. First, the claimed limitation of "repeating data" and what is meant by that term. Second, the claimed limitation of "signal format" and what is meant by that term. Clarifying the role these terms play in establishing the scope of the claim will show how the Florin reference does in fact anticipate each of the claimed limitations.

Regarding the use of the phrase "repeating data", as used in claims 1 and 8, the term is used in a manner that suggests the "repeating data" is any one or more portions or segments of data that repeat. Illustrated in fig. 2 of the instant application, the term "repeating data" reasonably reads equally on any sized

segment of the data broadcast signal comprising plural periods of data, any one period comprising the broadcast signal frames D1 through DN, or any one of the broadcast signal frames D1 through DN, as each are equally segments of data that repeat. When one compares fig. 2 of the instant application with fig. 3b of the Florin reference, it is clear that Florin contains segments of data (segments 110-119) that repeat periodically, much the same as each of the broadcast signal frames D1 through DN repeat periodically. From this comparison, it is clear that Florin teaches "repeating data" in a manner that meets the claimed limitation of "repeating data" found in claims 1 and 8 of the instant application. The plain meaning of the term as understood by the examiner is that the "repeating data" included in the broadcast signal refers to each segment of data, individually, that is contained within a period of repeating data, and not to an indefinitely long stream constituting plural periods of data, as the examiner can only assume was intended by the applicant.

Regarding the use of the phrase "signal format", this is a broad term that can reasonably refer to any manner of signal formatting, from the basic formats of analog signals and digital signals, to more specific references to coding formats such as MPEG or NTSC. The specification does not expressly define the term "signal format" to refer specifically to what the examiner assumes applicant intended signal format to mean. Paragraph [0031] of the instant application, as understood by the examiner, shows that the applicant intended for the term "signal format" to refer to a data stream of plural periods that is identical

to the originally received broadcast signal. Specifically, paragraph [0031] states "...the distributed data which has been separation-processed into the one-period amount of data and stored is returned (restored) to **repetitive data of plural periods** which has the same signal format as the original data transmitted as the broadcast reception signal" [*emphasis added*]. Use of the term "signal format" alone in the claim does not necessarily convey this idea of creating a stream of repetitive data of plural periods, as the examiner assumes was intended. In the telephone interview held October 6, 2005, the examiner advised applicant include substantially all of the language found in paragraph [0031] regarding the restoration of data, not just the term "signal format". As it is used in claims 1 and 8, signal format is reasonably interpreted to refer to simply digital data, as taught by Florin. Since the claim does not recite any limitations directed to the scope of the "signal format," the "signal format" will be given the broadest reasonable interpretation in the art, in this case a digital signal.

In conclusion, independent claims 1 and 8 are anticipated by the Florin reference because the scope of the claims, in their current form, are anticipated by a system wherein digital data is contained in a broadcast stream, individual portion of the digital data repeat periodically in the stream, and just one period of said data (meaning no copies of the data) is stored in it's original digital format, and then a portion of said data read out from memory. For example, in the Florin reference, as shown in fig. 3b, today's data, segment 110, is "repeating data", because it is data that repeats. Monday through Friday's data, segments 112-

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119 are also repeating data as well, as they each are data that repeat. A period of data is represented by the segments 110 and 112, which are repeated back to back in a periodic manner. The system then stores said segments in memory, and recalls them when the user wishes to see a listing of program information in a program guide. Retrieval of either one of the segments of data is to restore the "repeating data", because the data is data that is repeatedly broadcast.

As stated in the interview held October 6, 2005, applicant is advised to more specifically define in the claims what the scope of the restoration step entails. Specifically, applicant is advised to more explicitly define what is meant by the term "repeating data" (for example including the term "said repeating data including plural periods", so as to specifically define that **the** repeating data refers to a collection of periods and not a single segment or unit of data, such as a broadcast frame), and to more explicitly define what is meant by the term "signal format" (for example including the term "said signal format being a sequence of repeating periods of the one period of data" so as to specifically define the signal format to refer to the order or sequencing and arrangement of data objects being read from the storage unit).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Florin et al. (5,583,560) [Florin].

Regarding claims 1 and 8, Florin discloses a digital signal receiver (fig. 2) comprising:

a reception processor (transceiver 54 in fig. 2) operable to receive a broadcast signal (via tuner/demodulator 67) that includes repeating data (program guide data, col. 10 line 45 – col. 11 line 15) and to use a browser (fig. 12) to cause the received repeating data to be displayed by a display unit (TV 58 in fig. 2); and

a distributed information storage unit (main module 62 in fig. 2) operable to obtain the received repeating data from said reception processor (the repeating data is received through a channel and routed to the main module via the transceiver, col. 10, lines 45-48), to separate one period of data from the received repeating data (col. 11, lines 5-15), and to store the one period of data in a data storage device (the size of the period stored is dependent upon the available memory, wherein a storage device with 2 megabytes of storage would store the entire period, col. 11, lines 2-15), to read the one period of data from the data storage device in response to a received command (col. 15, lines 10-45), to restore the repeating data using the one period of data, the resorted repeating data having the same signal format as the received repeating data (the signal format of the data is digital, col. 11, lines 2-15, both before and after

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storage, thus the data never changes signal format), to generate a menu frame of items associated with the one period of data (the repeating data is restored by reading out the current day's program guide data, fig. 12, and also reading out future program guide data as the user flips through the days of programming, figs. 16-17), to convert the menu frame into menu data having a format that can be used by the browser (an inherent feature, as raw program guide data must first be formatted and arranged for display by a browser to display the screen shown in fig. 12), and to deliver the menu data to said reception processor (in order to display it upon TV 58, see fig. 2);

said reception processor being further operable to use the browser to cause the at least one of the restored repeating data and the menu data to be displayed by the display unit (fig. 12).

Regarding claim 2, Florin discloses the receiver of claim 1, wherein said distributed information storage unit (62) includes the data storage device (system memory 65 in fig. 2).

Regarding claim 3, Florin discloses the receiver of claim 1, wherein said distributed information storage unit is operable to select items for inclusion in the menu frame based on preferences associated with a given user (user's have the option to filter the displayed information based on a desired category, col. 11, lines 46-62).



***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Florin in view of Logan et al. (5,732,216, of record) [Logan].

Regarding claim 4, Florin discloses the receiver of claim 1, but fails to disclose said distributed information storage unit is operable to arrange items included in the menu frame based on priorities associated with a given user.

In an analogous art, Logan discloses generating program schedules and program listings that are generated based on user input priority information (col. 8, lines 8-28 and col. 9, lines 43-53), allowing users to dynamically filter the contents of the schedules and listings through weighted priorities.

It would have been obvious at the time to a person of ordinary skill in the art to modify the digital signal receiver of Florin in to include generating said menu frame based on input priorities of user preferred material, as taught by Logan, for the benefit of enabling users to dynamically filter the contents of the table of contents menu frame by selectively weighting different material to determine its placement in the menu frame.

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6. Claims 5, 6, 9, 10, 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Florin in view of Boyle et al. (6,118,870, of record) [Boyle].

Regarding claims 5, 6, 9, 10, 12, and 15 Florin discloses the receiver and method of claims 1 and 8, but fails to disclose encrypting and decrypting data when transferring it between the reception processor, the distributed information storage unit, and the data storage device.

In an analogous art, Boyle teaches it is conventional practice to encrypt data prior to transferring it from one point to another, and then subsequently decrypt the data after said transfer (col. 1, lines 43-50) for the benefit of preventing piracy of data (col. 1, lines 31-41).

It would have been obvious at the time to a person of ordinary skill in the art to modify the receiver and method disclosed by Florin to include encrypting and decrypting the read information data when transferring it between any two devices, as taught by Boyle, for the benefit of preventing unauthorized use or piracy of the read information data.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Florin in view of Martinez (4,928,177, of record).

Regarding claim 7, Florin discloses the digital signal receiver of claim 1, but fails to disclose the broadcast signal is transmitted during a vacant broadcast time (described in the specification as an off-peak time, e.g. "after midnight", paragraph 0022).

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In an analogous art, Martinez teaches delivering data over a television broadcast system (col. 3, lines 26-32) wherein data that is downloaded for storage and later use from the storage is downloaded during off-peak hours for more efficient transmission (col. 4, lines 8-17).

It would have been obvious at the time to a person of ordinary skill in the art to modify the receiver of Florin to include transmitting the information data during a broadcast vacant time, as taught by Martinez, for the benefit of increasing the efficiency at which the information data is broadcast.

8. Claims 13, 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Florin in view of Russo (5,619,247, of record).

Regarding claims 13 and 16, Florin discloses the receiver and method of claims 1 and 8, and additionally discloses the repeating data includes charge-based data (pay-per-view ordering information, col. 22, lines 52-67) and said distributed information storage unit is further operable to generate billing data (upon selection of a pay-per-view event, a user is charged for the order, col. 23, lines 1-42) whenever the one period of data is read from the data storage device (for a user who only utilizes the program guide to order pay per view events, the billing data for ordered pay per view programs is generated each time the one period of data, the program guide data, is read from the data storage device).

Florin fails to disclose accumulating billing data in a watch record.

In an analogous art, Russo teaches accumulating billing data for pay per view events in a watch record (col. 10, lines 39-48), for the benefit of accurate controlling of billing for data which is utilized on an on demand basis (col. 10, lines 10-22 and col. 10, lines 60-63).

It would have been obvious at the time to a person of ordinary skill in the art to modify the receiver and method of Florin to include accumulating billing data in a watch record, as taught by Russo, for the benefit of accurate controlling of billing for data which is utilized on an on demand basis.

Regarding claims 14 and 17, Florin and Russo disclose the receiver and method of claims 13 and 16, wherein said distributed information storage unit is further operable to periodically send the billing data to said reception processor for transmission to a management center (Russo teaches periodic uploading of billing data in batch transfers, col. 10, lines 39-43, wherein upstream data from the distributed information storage unit must pass through the reception processor to go upstream, as shown in Florin, fig. 2)

### ***Conclusion***

9. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information

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and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

### **Certificate of Mailing**

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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dominic D. Saltarelli whose telephone number is (571) 272-7302. The examiner can normally be reached on Monday - Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dominic Saltarelli  
Patent Examiner  
Art Unit 2611

DS



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